

### **AMENDMENTS TO THE CLAIMS**

The following listing of claims replaces all prior listings of claims in this application.

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)
- 13-21. (Cancelled)
22. (Previously Presented) A method for memory management, the method comprising:  
  
receiving a notification of a cache fault from a cache device, the notification including a fault memory block and a fault memory line;

determining if a tag corresponding to the fault memory block is present in a tag cache, wherein the tag includes prefetch bits corresponding to memory lines contained in a memory block specified by the tag;

in response to not locating the tag corresponding to the fault memory block in the tag cache:

fetching the tag corresponding to the fault memory block into the tag cache;

prefetching the memory lines corresponding to the prefetch bits in the tag that are set to a prefetch status, said prefetching into the cache device; and

resetting each of the prefetch bits which were set to a prefetch status to a nonprefetch status with a selected probability, wherein the selected probability is one eighth; and

setting the prefetch bit corresponding to the fault memory line in the tag to the prefetch status.

23-32. (Cancelled)